



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION 4
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ATLANTA, GEORGIA 30303-8960

1/25/2012

Mr. Paul Stodola
Planning Division - Environmental Branch
Jacksonville District
U.S. Army Corps of Engineers
P.O. Box 4970
Jacksonville, FL 32232-0019

**Subject: EPA's Review Comments on the Final Integrated General Reevaluation
Report and Supplemental Impact Statement (SEIS) for the Hurricane and
Storm Damage Reduction Project (Mid-Reach Segment), Brevard County**

Dear Mr. Stodola:

Pursuant to Section 309 of the Clean Air Act (CAA) and Section 102(2)(C) of the National Environmental Policy Act (NEPA), the U.S. Environmental Protection Agency (EPA) Region 4 has reviewed the U. S. Army Corps of Engineers' (Corps) Final Integrated General Reevaluation Report and Supplemental Impact Statement (SEIS) for the Hurricane and Storm Damage Reduction Project (Mid-Reach Segment), Brevard County, Florida. EPA notes that the Cooperating Agencies for this Final Integrated General Reevaluation Report and SEIS included both the National Marine Fisheries Service (NMFS) and U.S. Fish and Wildlife Service (USFWS). Under Section 309 of the CAA, EPA is responsible for reviewing and commenting on major federal actions significantly affecting the quality of the human environment. EPA previously reviewed the Draft SEIS and provided a comment letter (addressed to Mr. Eric Summa and dated 11/30/2009) expressing our environmental concerns regarding the long-term consequences of inundating a hard-bottom habitat, especially since this will not be the last beach nourishment project in the Mid-Reach. EPA requested that the Final SEIS include detailed information on both the final mitigation and final monitoring plans, and we rated the Draft SEIS as "EC2" (Environmental Concerns – additional information requested).

EPA notes that the Final SEIS addresses a hurricane and storm damage reduction project for the same 7.8 mile "Mid-Reach" coastal segment of Brevard County, Florida that was assessed in the Draft SEIS. We noted that the goal mentioned in the Final SEIS for the Brevard County Mid-Reach project remains the same as that of the Draft SEIS: "to reduce the damages caused by erosion and coastal storms to shorefront structures along the Mid-Reach study area" by supporting the non-Federal sponsor's locally preferred plan as the District's Recommended Plan. This plan consists of a "small-scale" beach fill varying from a 0-ft to 20-ft extension of the mean high water line, with the addition of "advanced nourishment" to maintain the design fill volume. EPA notes that the Final SEIS has updated sand quantities from the Draft SEIS. The District previously reported that the approximate volume of sand to be placed was to be 409,000 cubic yards, plus another 164,000 cubic yards for advanced nourishment, giving a total fill requirement of 573,000 cubic yards. EPA notes that the Final SEIS has new volumes of sand as

calculated from an updated survey (2008), including an initial design fill of 445,000 cubic yards plus an advanced nourishment fill of 210,000 cubic yards, for a total fill of 655,000 cubic yards at initial construction. The Final SEIS notes that the recommended plan offers erosion protection “ranging from a 5-year storm level to a 75-year storm, varying along the length of the Mid-Reach.”

EPA concurs with the statement in the Final SEIS that “from an ecosystem standpoint, minimizing impacts to nearshore rock resources within the Mid-Reach is considered more important than restoring a complete sandy shoreline or wider beach.” In addition to our agency, EPA notes that the U.S. Fish and Wildlife Service, National Marine Fisheries Service, Florida Game and Fresh Water Fish Commission and the Florida Department of Environmental Protection have all expressed concern that proposed beach nourishment within the Mid-Reach would have adverse impacts on nearshore coquina rock outcrops and scattered worm rock communities (“hard bottom”). EPA agrees with the District that this type of habitat should be protected in order to comply with the Magnuson-Stevens Fishery Conservation and Management Act and because it is considered both Essential Fish Habitat and a Habitat of Particular Concern. EPA notes that “research conducted for this study identified a plethora of ecological functions and species attendant to the Mid-Reach rock.” EPA also recognizes that hard bottom habitats support very diverse types of fish populations, and that the Mid-Reach rock is unique due to its being distinct from larger hard bottom habitats further south along the Florida coastline.

As with the Draft SEIS, the District continues to report in the Final SEIS that placement of the sand would impact about 3.0 acres of hardbottom areas by direct and indirect cover, of which 1.4 acres is expected to “include some temporal variation as the advanced nourishment erodes.” The mitigation quantity has been calculated from the Uniform Mitigation Assessment Method (UMAM) ratio of 1.6 mitigation acres required for every acre of natural rock impacted, resulting in a mitigation of 4.8 acres. The Final SEIS notes that the recommended plan includes impacts in Reaches 1 to 5, but no impacts to Reach 6. The area impacted is on the landward edge of the nearshore rock, resulting in “a small width of rock impacted but over the whole length of Reach 1 to 5.” The Final SEIS states that the calculated impact acreage is 3.0 acres out of the total of 31.3 acres of nearshore rock in the Mid-Reach study area, but that “the nearshore rock seaward of the fill area will not be impacted.” As previously reported in the Draft SEIS, mitigation will be accomplished concurrently with the beach nourishment project, with construction of articulated concrete mats with embedded coquina rock placed in water depths of 14 to 16 feet mean low water.

The Final SEIS notes that the Locally Preferred Plan (LPP) final total project cost estimate is lower than the National Economic Development (NED) plan, and that the initial construction of the LPP is proposed for cost sharing at 54% Federal participation. The Final SEIS provides detailed cost tables that demonstrate that the recommended plan is economically feasible, and the District believes “environmentally acceptable and soundly engineered.” EPA notes that the District believes that “coordination of the plan to date has resolved all issues brought forward during the scoping process,” and the Final SEIS features a summary table that presents data at October 2010 price levels and interest rates.

In response to your December 27, 2011 letter requesting our comments and recommendations (that was sent to our Agency along with a copy of the Final SEIS), EPA Region 4 appreciates the offer to provide comments and recommendations on the Final Integrated General Reevaluation Report and Supplemental Impact Statement (SEIS), and we offer the following:

1. EPA previously recommended that if the comprehensive post-construction monitoring indicates any changes occurring to the beaches and the near-shore environment (e.g., unexpected erosion is detected), the project should be temporarily halted and a re-evaluation of the long term shoreline maintenance plan conducted. EPA recommended that any loss of material during construction should be thoroughly investigated, and appropriate remedies enacted. The District has responded in the Final SEIS that the project “shall be monitored per the plan described in the report, and any changes to the beach and the near-shore environment shall be evaluated.” Further, the District has agreed to provide monitoring reports with the “appropriate agencies,” and to re-evaluate when necessary. EPA notes that the District has committed to investigate loss of material if it occurs during construction, and that “appropriate remedies shall be enacted if practicable.” EPA therefore requests that, in the event of a loss of material during construction, the referenced monitoring reports be shared with Chris McArthur, P.E., of EPA Region 4’s Wetlands and Marine Regulatory Section (phone 404-562-9391).

2. EPA previously strongly recommended the use of “adaptive management measures” to address potential problems with fish populations and turtle/shore bird nesting, and (if necessary) that the maintenance plan should be modified. The District has committed, per the monitoring plan, that macro-algae, invertebrates, juvenile and adult fishes, and marine turtles will be assessed at the mitigation reefs and nearshore hardgrounds. Data “shall be collected annually, and shall be evaluated after the Year-5 post-construction survey to assess the project's impacts to the nearshore hardgrounds and the performance of the mitigation reef.” The District commits (as per the Final SEIS) that if the Average with Project Acreage (AWPA) is less than the Threshold Mitigation Acreage (TMA) after the Year-5 survey, or should annual assessments of the AWPA or nearshore rock surveys indicate significant trends that are adverse or inconsistent with the project's predicted performance, then “adaptive actions shall be taken.”

3. EPA notes that Corps of Engineers adaptive management actions could include “additional monitoring, analysis, and/or modifications to the project plan” subject to coordination between the “Corps, local sponsor and the relevant regulatory agencies.” EPA concurs with the District that shore bird nesting activities should also be monitored during construction activities, and protective measures (i.e. buffer zones around nests) shall be implemented to avoid take of eggs, chicks, or adult birds. If adaptive management actions are eventually taken, EPA Region 4 requests our EPA-Jacksonville District Liaison, Eric Hughes, be contacted (phone 904-232-2464).

4. EPA notes that in the Other Sources of Material (Final SEIS Section 5.4.1.5), use of the Poseidon dredged material management area (DMMA) for stockpiling material from the Canaveral Shoals Borrow Areas is discussed. EPA recommends the District consider

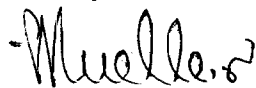
using any suitable dredged material (possibly stockpiling that material in the DMMA) from the Canaveral Harbor Navigation Project for some of the beach fill. This option should be considered, and EPA notes that dredged material was used from the Poseidon DMMA in 1998 for beach fill.

5. EPA noted in our comments on the Draft SEIS that the District plans to rehabilitate the Poseidon DMMA at Port Canaveral, with dredged material from Canaveral Shoals then placed into Poseidon DMMA every 6 years. The District proposes to haul this sand by dump truck to the Mid-Reach for placement on the beach at approximately 3 year intervals. EPA noted that thousands (+8k to over 15k, depending on the size of the dump trucks used) of “fully loaded trips” will be necessary. EPA recommended that the highway haul route for this major sand hauling project should carefully be considered, with particular attention to any load rated bridges on the route and averting other safety and community impacts. The District has noted in the Final SEIS that it will coordinate these routes with the local sponsor, Brevard County, to ensure adequate safety.

6. The Corps, and its local sponsor, have identified cumulative impacts to hard bottom habitat as being an issue of concern. Per the Environmental Operating Principles of the Corps of Engineers, we understand that this project will be conducted in an “ecologically sustainable” manner. As with issues related to macro-algae, invertebrates, fish, marine turtles, and bird populations, if adaptive management actions are undertaken because of issues related to hard bottom habitat, EPA requests that our EPA-Jacksonville District Liaison, Eric Hughes, be contacted (phone 904-232-2464).

In summary, EPA does have some remaining environmental concerns regarding the long-term consequences of inundating a hard-bottom habitat, especially since this will not be the last beach nourishment project in the Mid-Reach. EPA concurs with the Corps’ decision to select the project alternative that is the most “economically feasible, environmentally acceptable, and soundly engineered” out of the range of alternatives considered. EPA also appreciates the Corps of Engineers’ commitment to continue to coordinate with our agency to resolve any issues that may arise after the Final SEIS is issued. Please include us in any notifications of interagency meetings. Thank you, again, for the opportunity to comment on the Final SEIS. If you wish to discuss EPA’s comments, please contact me at 404/562-9611 (mueller.heinz@epa.gov) or Paul Gagliano, P.E., of my staff at 404/562-9373 (gagliano.paul@epa.gov)

Sincerely,



Heinz J. Mueller, Chief
NEPA Program Office
Office of Policy and Management

cc: Eric Hughes, EPA Region 4-Jacksonville District Liaison
Chris McArthur, P.E., EPA Region 4 Wetlands and Marine Regulatory Section